

**CLAIMS:**

1. A method of controlling access of a subscriber to a network comprising:

    sending an identification of the subscriber and an access to be provided to the subscriber from a visited network of a plurality of networks connected to a home network;

5           in response to the identification of the subscriber and access to be provided to the subscriber, storing a subscriber profile of an authorized access to be provided to the subscriber; and

    controlling access of the subscriber to any network dependent upon a comparison of the access to be provided to the subscriber and the stored subscriber profile.

10           2. A method in accordance with claim 1 wherein:

    the storing of the subscriber profile is in the home network.

3. A method in accordance with claim 1 wherein:

    the storing of the subscriber profile is in the visited network.

4. A method in accordance with claim 1 wherein:

15           each different access provides a different degree of bandwidth in communications.

5. A method in accordance with claim 1 wherein:

    each access provides for a different degree of security in communications.

6. A method in accordance with claim 1 wherein:

each access provides different connection supplementary services.

7. A method in accordance with claim 2 wherein:

each access provides a different degree of bandwidth in communications.

5 8. A method in accordance with claim 2 wherein:

each access provides for a different degree of security in communications.

9. A method in accordance with claim 2 wherein:

each access provides different connection supplementary services.

10. A method in accordance with claim 3 wherein:

10 each access provides a different degree of bandwidth in communications.

11. A method in accordance with claim 3 wherein:

each access provides for a different degree of security in communications.

12. A method in accordance with claim 3 wherein:

each access provides different connection supplementary services.

15 13. A method in accordance with claim 1 wherein:

the home network is an internet protocol network and the visited network is a wireless public cellular bearer network.



09731758.120800

20. A method in accordance with claim 4 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

21. A method in accordance with claim 5 wherein:

5 the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

22. A method in accordance with claim 6 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

10 23. A method in accordance with claim 7 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

24. A method in accordance with claim 8 wherein:

15 the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

25. A method in accordance with claim 9 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

09731758 120800

26. A method in accordance with claim 10 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

27. A method in accordance with claim 11 wherein:

5 the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

28. A method in accordance with claim 12 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

10 29. A method in accordance with claim 13 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

30. A method in accordance with claim 15 wherein:

15 the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

31. A method in accordance with claim 16 wherein:

the access is chosen from a plurality of authorized accesses which may be granted to the subscriber.

32. A method in accordance with claim 1 wherein:

an application level registration message containing the identification of the subscriber and the access is generated in response to a request from subscriber equipment to a visited network entity;

5 in response to an entity in the visited network receiving the request, an address of an entity in the home network is obtained from a routing analysis in the visited network; and

the application level registration message is transmitted to the address in the home network.

10 33. A method in accordance with claim 32 wherein:

an entity of the home network obtains the subscriber profile in response to receipt of the application level registration message.

34. A system comprising:

15 a home network which stores a plurality of subscriber profiles each defining an access to be provided to a subscriber to a network;

a plurality of networks connected to the home network;

subscriber equipment connected to a visited one of the plurality of networks through which the subscriber obtains an access to any network; and wherein

20 in response to connection of the subscriber equipment to the visited network, an identification of the subscriber and an access to be provided to the subscriber is sent to the home network, and a subscriber profile of an authorized access to be provided to the subscriber is stored in one of the networks and access of the subscriber to any network is

controlled by one of the networks storing the subscriber network dependent upon a comparison of the access to be provided to the subscriber and the stored subscriber profile.

35. A system in accordance with claim 34 further comprising:

a network entity within the home network which stores the subscriber profile.

5 36. A system in accordance with claim 34 further comprising:

a network entity within the visited network which stores the subscriber profile.

37. A method of controlling access of a subscriber to register in networks comprising:

10 during or after the subscriber registers in a network, providing an identification of the subscriber and an access at a home network of the subscriber, the access comprising an identification of access to one of the networks in which the subscriber is registered.

38. A method in accordance with claim 37 wherein:

15 in response to the providing of the identification of the subscriber and the access at the home network, storing a subscriber profile indicating an access to be provided to the subscriber to at least the networks; and  
using the stored subscriber profile in controlling service provided to the subscriber.





45. A method in accordance with claim 39 wherein:

the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network or in response to a request from a call serving entity.

46. A method in accordance with claim 41 wherein:

the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network.

10 47. A method in accordance with claim 42 wherein:

the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network.

48. A method in accordance with claim 43 wherein:

15 the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the networks.

49. A method in accordance with claim 44 wherein:

the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

20

50. A method in accordance with claim 45 wherein:

the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

5 51. A method in accordance with claim 46 wherein:

the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the networks.

52. A method in accordance with claim 47 wherein:

10 to the subscriber and data regarding permitted access of the subscriber to the access networks.

53. A method in accordance with claim 46 wherein:

15 to the subscriber and data regarding permitted access of the subscriber to the access networks.

54. A method in accordance with claim 47 wherein:

the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

55. A method in accordance with claim 42 wherein:

the application level of access originates from equipment of the subscriber registered to one of the networks.

56. A method in accordance with claim 43 wherein:

5 the access originates from an entity providing an interface between the visited network and one of the access networks to which the subscriber is registered.

57. A method in accordance with claim 44 wherein:

the access is determined by a call control entity based upon information obtained by the control entity about the network to which the subscriber is registered.

10 58. A method in accordance with claim 39 wherein:

in response to at least one subsequent identification of the subscriber and the access being provided at the home network, the home network sends to the visited network an acknowledgment of a change in registration of the subscriber to another access network.

59. A method in accordance with claim 37 wherein:

15 the access is used by the home network to control connectivity of communications to the subscriber through the home network.

60. A method in accordance with claim 39 wherein:

the access is used by the home network to control connectivity of communications to the subscriber through the home network.

61. A method in accordance with claim 41 wherein:

the access is used by the home network to control connectivity of communications to the subscriber through the home network.

62. A method in accordance with claim 44 wherein:

5 the access is used by the home network to control connectivity of communications to the subscriber through the home network.

63. A method in accordance with claim 48 wherein:

the access is used by the home network to control connectivity of communications to the subscriber through the home network.

10 64. A method in accordance with claim 55 wherein:

the access is used by the home network to control connectivity of communications to the subscriber through the home network.

65. A method in accordance with claim 56 wherein:

15 the access is used by the home network to control connectivity of communications to the subscriber through the home network.

66. A method in accordance with claim 57 wherein:

the access is used by the home network to control connectivity of communications to the subscriber through the home network.

09734758-1200000

67. A method in accordance with claim 58 wherein:

the access is used by the home network to control connectivity of communications to the subscriber through the home network.

68. A method of controlling access of a subscriber to register in networks comprising:

5 providing an identification of the subscriber at a home network;  
in response to the providing of the identification of the subscriber, storing a subscriber profile of an access to be provided to the subscriber to at least the networks; and  
using the stored subscriber profile in controlling service provided to the subscriber.

10 69. A method in accordance with claim 68 wherein:

the controlling of the service provided to the subscriber occurs while the subscriber is registered in a visited network and the networks are access networks from which the subscriber may obtain services while registered in the visited network.

70. A method in accordance with claim 68 comprising:

15 storing the subscriber profile in the home network.

71. A method in accordance with claim 69 comprising:

storing the subscriber profile in the home network.

72. A method in accordance with claim 69 comprising:

storing the subscriber profile in the visited network.

73. A method in accordance with claim 69 wherein:

the providing of the identification of the subscriber occurs in response to transmission of an access type indicator to the home network identifying an access network.

74. A method in accordance with claim 70 wherein:

5 the providing of the identification of the subscriber occurs in response to transmission of an access type indicator to the home network identifying an access network.

75. A method in accordance with claim 71 wherein:

the access originates from equipment of the subscriber registered to one of the networks.

10 76. A method in accordance with claim 72 wherein:

the access originates from an interface between the visited network and one of the access networks.

77. A method in accordance with claim 71 wherein:

15 the access is determined by a call control entity based upon information obtained by the control entity about the network.

09734758 120800

78. A system comprising:

networks in which the subscriber may register;

a home network in which a plurality of subscriber profiles are stored, each of the profiles defining an access to be provided to a subscriber while registered in the

5 networks;

subscriber equipment which is connected to the networks while the subscriber is registered therein; and wherein

in response to connection of the subscriber equipment to one of the networks at least an identification of the subscriber is provided at the home network, a subscriber

10 profile of an access to be provided to the subscriber to at least the networks is stored, and the stored subscriber profile is used in controlling service provided to the subscriber.

79. A system in accordance with claim 78 wherein:

the controlling of the service provided to the subscriber occurs while the subscriber is registered in a visited network and the networks are access networks from

15 which the subscriber may obtain services while registered in the visited network.

80. A system in accordance with claim 78 comprising:

a storage in a visited network which stores the subscriber profile.

81. A system in accordance with claim 79 comprising:

a storage in the visited network which stores the subscriber profile.

09734758-120800

82. A system in accordance with claim 79 wherein:

an access comprising an identification of access to one of the networks in which the subscriber is registered is transmitted from the visited network to the home network and the storing of the subscriber profile is in response to the identification of access at the  
5 home network.

83. A system in accordance with claim 79 wherein:

the stored subscriber profile is used by the visited network in controlling service provided to the subscriber.

84. A method in accordance with claim 1 wherein:

10 the access is an application level access.